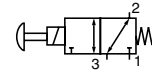




SOLENOID VALVES

manual reset type, direct operated
poppet type, flameproof enclosure
Ex d IIC T6-T5 Gb, Ex tb IIIC T85°C-T100°C Db IP65
in-line, 1/2

U



3/2
Series
126

FEATURES

- Solenoid valves with explosionproof operator MB type for use in potentially explosive atmospheres according to ATEX Directive 2014/34/EU EC type examination certificate no.: **LCIE 03 ATEX 6059 X** IECEx Certificate of Conformity no.: **IECEx LCI 09.0001X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN-IEC 60079-0, EN-IEC 60079-1 and EN 60079-31
- Solenoid valve requiring manual resetting with coil energised after returning from the tripped state on loss of power
- Easy electrical connection with screw terminals
- Wide range of applications, particularly at low temperatures
- Solenoid valves in conformity with IEC 61508: 2010 route 2nd certified by TÜV with integrity levels:
 - SIL2 with HFT = 0
 - SIL3 with HFT = 1

GENERAL

Differential pressure 0 to 10 bar [1 bar = 100 kPa]
Response time 20 ms (on loss of voltage, with air ΔP = 6 bar)

| fluids (*) | temperature range (TS) | seal materials (*) |
|----------------|------------------------|--------------------|
| air, inert gas | - 40°C to + 60°C | VMQ (silicone) |

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

| | Brass body | Stainless steel body |
|-----------------------|------------------------|----------------------|
| Body | Brass | AISI 316L SS |
| Internal parts | Stainless steel, brass | Stainless steel |
| Springs | Stainless steel | Stainless steel |
| Seals | VMQ | VMQ |

OTHER MATERIALS

| | |
|-----------------------------|-----------------|
| Electrical enclosure | Aluminium |
| Cover screws | Steel |
| Core tube | Stainless steel |
| Core and plugnut | Stainless steel |
| Nameplate | Aluminium |

ELECTRICAL CHARACTERISTICS

| | | | |
|--|--|--------------------|---------------------------------|
| Coil insulation class | H | SAFETY CODE | Ex d IIC T6-T5 Gb |
| Coil connection | Screw terminals | | Ex tb IIIC T85°C-T100°C Db IP65 |
| Electrical safety | IEC 335 | | |
| Electrical enclosure protection | Moulded IP65 (EN 60529) | | |
| Standard voltages | DC (=) : 24V - 48V | | |
| (Other voltages and 60 Hz on request) | AC (~) : 24V - 48V - 115V - 230V / 50 Hz | | |

| operator type | power ratings | | operator ambient temperature range (TS) ⁽²⁾ (C°) | safety code | replacement coil | | type ⁽¹⁾ |
|---------------|---------------|------------|--|-----------------------------------|------------------|---------|---------------------|
| | hot/cold (*) | hot/cold = | | | ~ | = | |
| | ~ | = | | | | | |
| MB | - | - | 13/18 (W) / 10,4/12,5 (W) | Ex d IIC Gb Ex tb IIIC Db IP65 | 230 V/50 Hz | 24 V DC | 01 |

(*) AC: Rectified coil construction.

⁽¹⁾ Refer to the dimensional drawings on the following page.

| operator AC (~) | | |
|-----------------|--------------------------------------|---------------|
| Pn | max. ambient temp. °C ⁽²⁾ | |
| | surface temperature | |
| (W) | T6 85°C | T5 100°C |
| 18 | 50 | 60 (SIL = 65) |

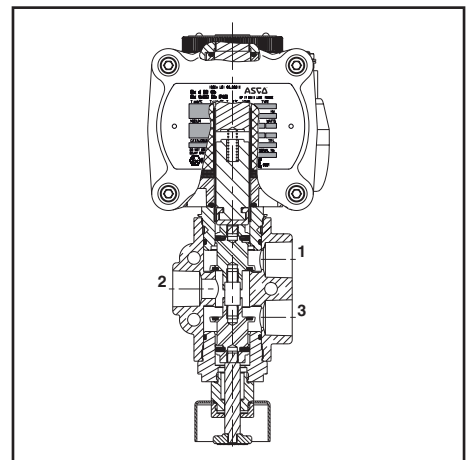
| operator DC (=) | | |
|-----------------|--------------------------------------|---------------|
| Pn | max. ambient temp. °C ⁽²⁾ | |
| | surface temperature | |
| (W) | T6 85°C | T5 100°C |
| 12,5 | 50 | 60 (SIL = 65) |

SPECIFICATIONS

| pipe size | orifice size | | flow coefficient Kv | | | | operating pressure differential (bar) | | | power coil (W) | | catalogue number | |
|--|--------------|-------|---------------------|---------|--------|---------|---------------------------------------|-----------|----|----------------|------|------------------|-----------------|
| | 1 → 2 | 2 → 3 | 1 → 2 | | 2 → 3 | | min. | max. (PS) | | ~ | = | brass | stainless steel |
| | | | (m³/h) | (l/min) | (m³/h) | (l/min) | | air (*) | | | | | |
| NPT | (mm) | (mm) | (m³/h) | (l/min) | (m³/h) | (l/min) | | ~ | = | ~ | = | | |
| U - Universal, brass or stainless steel body, VMQ seals | | | | | | | | | | | | | |
| 1/2 | 10 | 10 | 2,1 | 35 | 2,1 | 35 | 0 | 10 | 10 | 18 | - | 12600015 | 12600021 |
| | | | | | | | | | | - | 12,5 | 12600016 | 12600022 |
| U - Universal, brass or stainless steel body, VMQ seals (Certified IEC 61508 Functional Safety data) ⁽³⁾ | | | | | | | | | | | | | |
| 1/2 | 10 | 10 | 2,1 | 35 | 2,1 | 35 | 0 | 10 | 10 | 18 | - | 12660034 | 12660033 |
| | | | | | | | | | | - | 12,5 | 12660035 | 12660032 |

⁽²⁾ Contact us for temperatures above +60°C.

⁽³⁾ Including NPT 1/2 stainless steel exhaust protector.



OPTIONS

- IECEx-ATEX cable gland, 3/4 NPT, pre-installed on solenoid valve, supplied with cable clamp (see “explosionproof solenoids” section)
 - for non-armoured cable of 8,5 to 16 mm dia., catalogue number **660510**
 - for armoured cable of ID 8,5 to 16 mm / OD 12 to 21 mm, catalogue number **660514**
- Other cable diameters
- Exhaust protector:
 - stainless steel for bronze and stainless steel bodies, catalogue number **560594** (standard for SIL versions)
- Oxygen service (min. -25°C; contact us for lower temperatures), catalogue number **970530**
- Temperatures down to -50°C, contact us
- Marine paint/anti-corrosive or dust environments (solenoid operator enclosure only)

INSTALLATION

- Always install solenoid valves with body vertical and solenoid upward
- Can be used for the following functions, depending on how the ports are connected:

| 2/2 NC | 2/2 NO | 3/2 NC | 3/2 NO | mixing | selector |
|--------|--------|--------|--------|--------|----------|
| | | | | | |

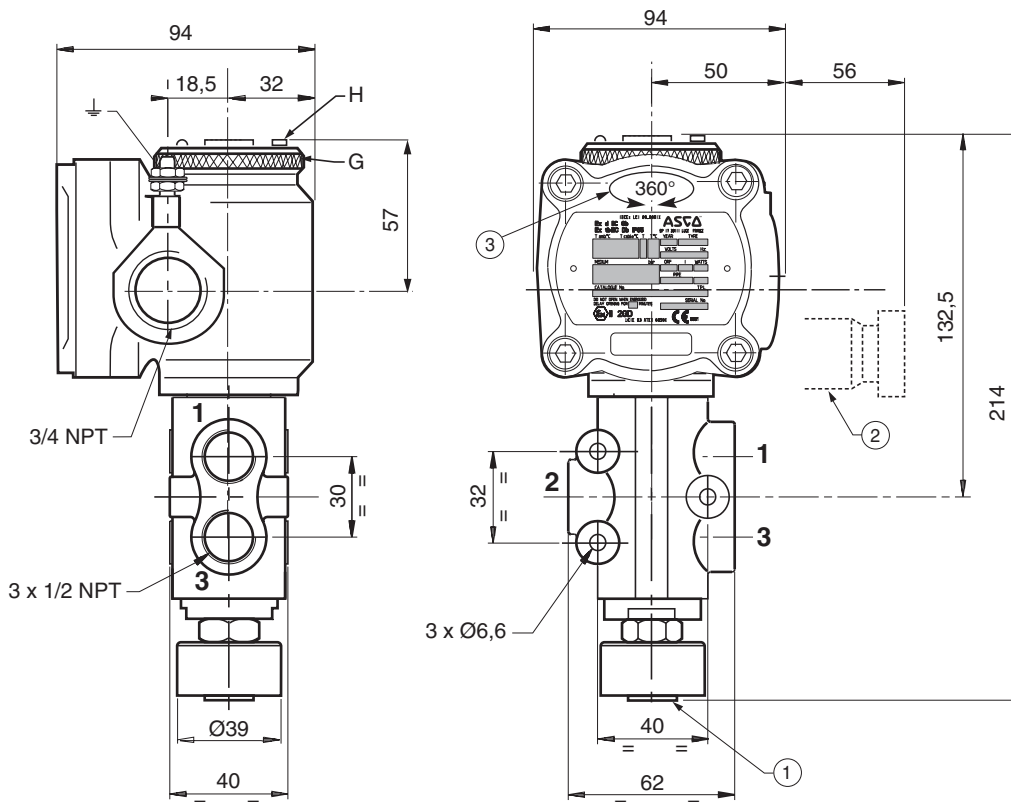
- Solenoid valves have 3 mounting holes in body
- IEC 61508 Functional Safety, allowable temperature range: -40°C to +65°C. Probability of failure on demand, contact us
- Threaded pipe connection is standard NPT (ANSI 1.20.3)
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

Operator type “MB”
Aluminium
Ex d IIC T6-T5 Gb - Ex tb IIIC T85°C-T100°C Db IP65



| type | operator type | body | weight ⁽¹⁾ |
|------|---------------|-----------------|-----------------------|
| 01 | MB | brass | 2,5 |
| | | stainless steel | 2,1 |

- ① Manual reset
- ② Explosionproof cable gland to IECEx-ATEX with clamp
- ③ To change the orientation of the solenoid operator relative to the ports, the screw (H) and the nut of the cover (G) must be loosened.

⁽¹⁾ including coil.
X019-155-2